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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,594	10/27/2000	Kiyohiko Yamazaki	OKI 266	3502

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EXAMINER

WONG, BLANCHE

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 05/03/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,594

Applicant(s)

YAMAZAKI, KIYOHICO

Examiner

Blanche Wong

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11-18 is/are rejected.
- 7) ☒ Claim(s) 1-2,5-6, 10,13-14,17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because [TITLE OF DOCUMENT] in Fig. 1 is not indicative of a title. Examiner suggests inserting a title or removing the heading. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "control circuit" of and the "transmission-receiving control circuit" of claims 1,4,9,12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show four "circuits": control circuit on p. 3, ln. 2-3, timing control circuit on p.3, ln. 4, communication channel selecting circuit on p.3, ln. 4 (sometimes refer to as selecting circuit on p.3, ln.13), and transmission-receiving control circuit on p.3, ln. 20, as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to

the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:
 - a. Unexplained abbreviations such as PHS on p.1, ln. 9, and missing abbreviations such as ADC on p.5, ln. 4. Examiner suggests that all abbreviations should be included, expanded or explained when used for the first time.
 - b. Missing structural support for phrases such as "which is not shown in the figure" on p.5, ln. 22, "not shown in Fig. 2" on p.8, ln. 1 and ln. 25. Examiner suggests that these phrases and respective elements should be shown in the drawings or figures.
 - c. Direct translation from a foreign document such as "a family type extension telephone system" on p.2, ln. 2, "original mode" on p.9, ln. 1. Examiner suggests clarification using idiomatic or proper English because the platform of the invention should be clearly specified.
 - d. Hanging sentencing such as on p.6, ln. 12-14, on p.10, ln. 12-14; and lack of paragraph indentation such as on p.10, ln. 19. Examiner suggests the one sentence belongs with the paragraph prior to the one sentence, and indentation use on the paragraph starting on p.10, ln. 19.

Appropriate correction is required.

Claim Objections

5. **Claims 1,5,6,13** are objected to because of the following informalities:

inconsistency.

With regard to claims 1 and 6, Examiner noted that "a plurality of communication channels" is used in claim 1 and "a plurality of channels" is used in claim 6. Examiner suggests "a plurality of communication channels" in both claims 1 and 6.

With regard to claims 5 and 13, Examiner noted that a receiving status and a transmission status are defined in claim 1. Therefore, -- a transmission status -- in claim 1, ln. 2-3 and claim 12, ln. 2, should be replaced by "the transmission status," or further explanation in the claim is necessary. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 6-8 rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A signal or status that triggers or toggles between a transmission and a receiving is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claims 6-7,12,15-16,18** recite limitations that have insufficient antecedent basis.

Claim 6 recites the limitation "the steps of" in ln. 2.

Claim 7 recites the limitation "the channel" in ln. 1. Examiner suggests "the channels" or "the one of the channels", as used in claim 6, to replace "the channel."

Claim 12 recites the limitation "said transmission-receiving control circuit" in ln. 4.

Claim 15 recites the limitation "first to fourth channels" in ln. 2.

Claim 16 recites the limitation "the first channel," "the second channel," "the third channel," and "the fourth channel," in ln. 4,6,8,10 respectively.

Claim 18 recites the limitation "the first channel," "the second channel," "the third channel," and "the fourth channel," in ln. 4,6,8,10 respectively, and again in ln.

12,14,16,18 respectively.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 6-8** rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kondou et al. (U.S. Pat No. 5,280,471).

With regard to claim 6, Kondou discloses a method for communication (a method in a TDMA communications system) by allocating 8 (transceiver control section) a transmission 22 (transmitter) and a receiving 10 (receiver) to a plurality of channels (a plurality of time slots; col. 2, ln. 54) in a frame (a TDMA frame)), comprising:

measuring intensity (strength of receive signal in Fig. 4 and 5; see also magnitudes of the signals in col. 2, ln. 58) of a radio signal received through an antenna 12 in a receiving status (it is ^{inherent} ~~obvious~~ that the antenna is receiving a radio signal) even at a transmission timing (time slots of the TDMA frame in col. 2, ln. 63) allocated to a predetermined frame (predetermined time in col. 2, ln. 62);

comparing 50 (comp; see also comparator in col. 2, ln. 55-57) the intensity of the radio signal (a first signal indicative of receive signal strength in col. 2, ln. 55-56) with a predetermined level (a reference level signal in col. 2, ln. 57);

selecting 54 (gate; see also gate circuit in col. 2, ln. 64-col.3, ln. 2) one of the channels for communication when the intensity of the measured radio signal (a comparison result signal in col. 2, ln. 59) in the one of the channels is at said predetermined level or less in said comparing step.

With regard to claim 7, the channel has a transmission channel 22 (transmitter) and a receiving channel 10 (receiver).

With regard to claim 8, the radio signal measure in said measuring step (see measuring in claim 6) is transmitted 8 (transceiver control section) in the transmission channel 22 (transmitter).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 1,3-4, and 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Magana et al. (U.S. Pat No. 6,487,418) and Patsiokas et al. (U.S. Pat No. 5,203,012).

With regard to claims 1,6-8 and 9, Magana discloses a communication channel selecting circuit (free channel selection; see also col. 2, ln. 10-11 for apparatus and method) for selecting one of a plurality of communication channels (time division; see also col. 2, ln. 18) in which a radio signal (RF; see also col. 2, ln. 16) is transmitted and received (col. 1, ln. 22-24) in accordance with a radio signal intensity (col. 2, ln. 25; see also col. 1, ln. 52-57) comprising:

a radio unit 14 (RF module) outputting an intensity signal 24 (RSSI) indicating the radio signal intensity of the radio signal received through an antenna 20 (antenna) in a receiving status (col. 2, ln. 61 for receiving control signals);

a control circuit 12 (col. 2, ln. 60-62 for micro controller) setting said radio unit to the receiving status;

a register 42 (CAM; col. 3, ln. 32-34 for cells for storing in CAM) storing a level of the intensity signal outputted from said radio unit;

and comparing 28 (channel latch) the level stored in said register 42 (CAM; col. 3, ln. 32-34 for cells for storing in CAM) and selecting 18 (REG-CS signal) one of the channels.

However, Magana fails to show explicitly a transmission status, a control circuit outputting a timing signal for each of the channels during the transmission timing, and a transmission-receiving control circuit, as recited in claim 1.

Patsiokas discloses a transmission status 504 (antenna switch; col. 7, ln. 53-55), a control circuit 508 (controller; col. 7, ln. 61-66) outputting a timing signal for each of the channels during the transmission timing, and a transmission-receiving control circuit Fig. 7 comparing 208 (see also Fig. 2) the level stored in said register and selecting one of the channels for transmission and receiving, as recited in claim 1.

A person of ordinary skill in the art would have been motivated to employ Patsiokas in Magana in order to obtain both transmission and receiving a radio signal. The suggestion/motivation to do so would have been to provide for selecting an optimum communication channel for use as the communication link in a communication system having multiple communication channels. Patsiokas, col. 1, ln. 60-64. At the time the invention was made, therefore, it would have been obvious to one of ordinary

skill in the art to which the invention pertains to combine Patsiokas and Magana to obtain the invention as specified in claim 1.

With regard to claims 3 and 11, Magana also discloses an A/D converter 36 (A/D converter).

With regard to claims 4 and 12, Magana also discloses a CPU 12 (micro controller) comparing 28 (channel latch) the level stored in said register 42 (CAM), and transferring 16,18 (controller bus, REG-CS) a result of the comparison 26 (peak detector) to said control circuit 12 (micro controller).

With regard to claim 9, Patsiokas also discloses an antenna Fig. 1 for transmission and receipt (transceiver) of the radio signal.

Allowable Subject Matter

14. **Claims 2, 10,13-14, and 17** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. **Claims 15-16 and 18** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brown et al. (U.S. Pat No. 6,185,423) discloses a method and apparatus for selecting a communication channel in a communication network. A comparative evaluation is performed (col. 4, ln. 65-67; col. 6, ln. 34-45; col. 7, ln. 43-col.8, ln. 25).

Cannon et al. (U.S. Pat No. 6,690,941) discloses an adaptive digital RF communication in a cordless telephone. The codec 113 converts analog speech data to digital samples.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 703-305-8963. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 15, 2004

A handwritten signature in cursive script, appearing to read "Chau Nguyen".

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600